

MDL No. 1717-JJF

Plaintiffs,

C.A. No. 05-441-JJF

Defendants.

C.A. No. 05-485-JJF

## CONSOLIDATED ACTION

Defendants.

**REDACTED -- PUBLIC VERSION**

**RICHARDS, LAYTON & FINGER, P.A.**

Frederick L. Cottrell, III (#2555)  
Chad M. Shandler (#3796)  
Steven J. Fineman (#4025)  
One Rodney Square  
920 North King Street  
Wilmington, DE 19899  
(302) 651-7836  
cottrell@rlf.com  
shandler@rlf.com  
fineman@rlf.com

**OF COUNSEL:**

Charles P. Diamond  
Linda Smith  
Mark Samuels  
O'Melveny & Myers LLP  
400 South Hope Street  
Los Angeles, CA 90071-2899

*Counsel for Advanced Micro Devices, Inc. and  
AMD International Sales & Services, Ltd.*

Dated: May 1, 2008

**PRICKETT JONES & ELLIOTT, P.A.**

James L. Holzman (#663)  
J. Clayton Athey (#4378)  
1310 King Street  
P. O. Box 1328  
Wilmington, DE 19899  
(302) 888-6509  
jlholzman@prickett.com  
jcathey@prickett.com

*Interim Liaison Counsel and Attorneys for Phil  
Paul, on behalf of himself and all others  
similarly situated*

Dated: May 1, 2008

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
I. STATEMENT OF THE CLAIM .....	1
A. Introduction and Summary of Intel's Exclusionary Conduct .....	1
B. AMD Innovation Breakthroughs that Led Intel To Unlawfully Exclude .....	8
C. Intel's Objective of Preventing AMD from Reaching Minimum Viable Scale .....	11
D. Intel's Efforts Succeeded in Containing the AMD Threat .....	13
II. EXCLUSIONARY CONDUCT CONTENTIONS .....	15
A. Unlawful Exclusion of AMD from Tier 1 OEMs .....	18
1. Dell .....	19
a) Exclusive Dealing .....	19
b) Predatory Bid Pricing .....	25
2. Hewlett-Packard .....	25
3. IBM/Lenovo .....	30
a) Exclusive Dealing – Client Computers Prior to the Lenovo Sale .....	30
b) Exclusive Dealing – Client Computers After the Lenovo Purchase .....	33
c) Exclusive Dealing in IBM Servers – Intel Payments To Prevent IBM's Deployment of AMD-Powered Servers .....	38
4. Gateway .....	40
5. Acer .....	43
6. Japanese OEMs .....	47
a) Sony .....	51
b) Toshiba .....	52
7. European OEMs .....	53
B. Unlawful Exclusion of AMD from System Builders .....	55
1. Supermicro .....	56
2. Rackable .....	58
C. Unlawful Exclusion of AMD from the Distribution Channel .....	59
1. Threats to Remove Preferential Treatment .....	61

2.	Discretionary End-of-Quarter Rebates .....	64
D.	Intel's Exclusionary Technical Conduct.....	64
1.	Intel's Compilers.....	65
2.	Intel's Tampering with BAPCO Benchmarking Standards .....	66
3.	Intel's Manipulation of Industry Standards Setting Activities .....	67
a)	Intel Has Proposed Design Changes for the Sole Purpose of Harming AMD .....	68
b)	Intel Has Refused To Give AMD Access to Standard- Setting Work .....	69
c)	Intel Has Prevented Other Companies from Working with AMD .....	70
4.	Intel's Exclusive Dealings with Third Party Technology Companies.....	70
5.	Intel's Bag of Other Dirty Tricks.....	71
III.	STATEMENT OF PRINCIPAL LEGAL AUTHORITIES .....	72
A.	Intel Possesses Monopoly Power in the x86 Microprocessor Market .....	72
B.	Intel Has Maintained Its Monopoly Power Through Unlawful Exclusionary Conduct That Has Had an Anticompetitive Effect .....	75
1.	Payments for Exclusivity or Near-Exclusivity .....	76
2.	First Dollar Rebates Offered To Leverage Non-Contestable Demand To Foreclose AMD from the Opportunity To Compete Profitably for Contestable Demand .....	78
3.	Payments to OEMs To Exclude AMD Solutions from Key Market Segments, Distribution Channels, and New Product Launches.....	80
4.	Subsidization of Below-Cost Bids by Providing "Loyal" OEMs Free Microprocessors with Which To Target "Disloyal" OEMs Bidding AMD Solutions .....	82
5.	Range of Non-Price Exclusionary Conduct, Such As Threats, Interferences with AMD Product Launches, and Withholding of Technical Information from Customers That Did "Too Much" Business with AMD .....	83
C.	The Anticompetitive Effects of Intel's Myriad Exclusionary Conduct Must Be Considered Together .....	84
D.	Anticompetitive Effect.....	86
E.	Intel's Exclusionary Conduct Inflicted Antitrust Injury on AMD.....	87
IV.	CATEGORIES OF EVIDENCE ON WHICH PLAINTIFFS EXPECT TO RELY .....	88

A.	Given Factors Unique to This Case, Broad Deposition Discovery Is Appropriate .....	88
B.	Depositions Needed To Establish the Facts .....	91
C.	Categories of Documents on Which Plaintiffs Expect To Rely .....	92
D.	Expert Testimony .....	93
V.	FORMS OF RELIEF SOUGHT BY PLAINTIFFS .....	94
A.	AMD Seeks Damages For The Injury To Its Business And An Injunction Prohibiting Intel's Exclusionary Conduct.....	94
B.	Class Plaintiffs Seek Recovery of "Pass On" Damages and Injunctive Relief.....	96
VI.	CONCLUSION.....	98

## TABLE OF AUTHORITIES

### CASES

<i>Advanced Micro Devices v. Intel Corporation</i> , 452 F. Supp. 2d 555 (D. Del. 2006).....	95
<i>American Tobacco Co. v. United States</i> , 328 U.S. 781 (1946).....	75
<i>Angelico v. Lehigh Valley Hospital, Inc.</i> , 184 F.3d 268 (3d Cir. 1999).....	88
<i>Aspen Skiing Co. v. Aspen Highlands Skiing Corp.</i> , 472 U.S. 585 (1985).....	75, 76
<i>Associated Radio Serv. Co. v. Page Airways, Inc.</i> , 624 F.2d 1342 (5th Cir. 1980) .....	80, 84
<i>Broadcom Corp. v. Qualcomm Inc.</i> , 501 F.3d 297 (3d Cir. 2007).....	75, 76
<i>Brooke Group Ltd. v. Brown &amp; Williamson Tobacco Corp.</i> , 509 U.S. 209 (1993).....	79, 82
<i>Cascade Health Solutions v. PeaceHealth</i> , 515 F.3d 883 (9th Cir. 2007) .....	80
<i>City of Anaheim v. S. Cal. Edison Co.</i> , 955 F.2d 1373 (9th Cir. 1992) .....	85
<i>Cont'l Ore Co. v. Union Carbide &amp; Carbon Corp.</i> , 370 U.S. 690, 82 S. Ct. 1404, 8 L. Ed. 2d 777 (1962).....	85
<i>Conwood Co., L.P. v. U.S. Tobacco Co.</i> , 290 F.3d 768 (6th Cir. 2002) .....	73, 76, 80, 84
<i>In re Dynamic Random Access Memory (DRAM) Antitrust Litig.</i> , (N.D. Cal. June 5, 2006) 2006 WL 1530166 .....	96
<i>Eastman Kodak Co. v. Image Technical Servs., Inc.</i> , 504 U.S. 451 (1992).....	75

<i>Gen. Indus. Corp. v. Hartz Mountain Corp.</i> , 810 F.2d 79 (8th Cir. 1987) .....	76, 82, 83
<i>Heattransfer Corp. v. Volkswagenwerk, A.G.</i> , 553 F.2d 964 (5th Cir. 1977) .....	74
<i>Image Tech. Servs. v. Eastman Kodak Co.</i> , 125 F.3d 1195 (9th Cir. 1997) .....	74
<i>Instructional Sys. Dev. Corp. v. Aetna Casualty &amp; Surety Co.</i> , 817 F.2d 639 (10th Cir. 1990) .....	84
<i>In re Intel Corp. Microprocessor Antitrust Litig.</i> , 2007 WL 137152 (D. Del. Jan. 12, 2007).....	73
<i>Lansdale v. Philadelphia Elec. Co.</i> , 692 F.2d 307 (3d Cir. 1982).....	73
<i>LePage's Inc. v. 3M</i> , 324 F.3d 141 (3d Cir. 2003).....	<i>passim</i>
<i>Lorain Journal Co. v. United States</i> , 342 U.S. 143 (1951).....	76
<i>Los Angeles Land Co. v. Brunswick Corp.</i> , 6 F.3d 1422 (9th Cir. 1993) .....	74
<i>Ortho Diagnostic Sys., Inc. v. Abbott Laboratories, Inc.</i> , 920 F. Supp. 455 (S.D.N.Y. 1996) .....	80
<i>Otter Tail Power Co. v. United States</i> , 410 U.S. 366 (1973).....	75
<i>Queen City Pizza v. Domino's Pizza</i> , 124 F.3d 430 (3d Cir. 1997).....	73
<i>Rossi v. Standard Roofing</i> , 156 F.3d 452 (3d Cir. 1998).....	94
<i>SmithKline Corp. v. Eli Lilly &amp; Co.</i> , 575 F.2d 1056 (3d Cir. 1978).....	79, 81
<i>Tampa Elec. Co. v. Nashville Coal Co.</i> , 365 U.S. 320 (1961).....	77

<i>United States v. Dentsply Int'l, Inc.</i> , 399 F.3d 181 (3d Cir. 2005).....	<i>passim</i>
<i>United States v. Dentsply Int'l, Inc.</i> , 2006 WL 2612167 (D. Del. Apr. 26, 2006).....	96
<i>United States v. E. I. Du Pont de Nemours &amp; Co.</i> , 351 U.S. 377 (1956).....	73, 74
<i>United States v. Grinnell Corp.</i> , 384 U.S. 563 (1966).....	73, 74, 75, 81
<i>United States v. Microsoft Corp.</i> , 253 F.3d 34 (D.C. Cir. 2001).....	<i>passim</i>
<i>Verizon Commc'ns Inc. v. Trinko</i> , 540 U.S. 398 (2004).....	75
<i>Weiss v. York Hospital</i> , 745 F.2d 786 (3d Cir. 1984).....	78
<i>Zenith Radio Corp. v. Hazeltine Research Inc.</i> , 395 U.S. 100 (1969).....	87

#### FEDERAL STATUTES

15 U.S.C. § 2 .....	73
15 U.S.C. § 6a (1997) .....	95
15 U.S.C. § 15 .....	94
15 U.S.C. § 26.....	97

#### OTHER AUTHORITIES

Fortune Magazine (August 21, 2006) .....	3
3 Von Kalinowski on Antitrust § 25.03[3] (2 <sup>nd</sup> ed. 2004) .....	75
Tom, Balto & Averitt, Anticompetitive Aspects of Market-Share Discounts and Other Incentives to Exclusive Dealing, 67 Antitrust L.J. 615 (2000).....	76
1 Julian O. von Kalinowski, et al., Antitrust Laws and Trade Regulation § 2.04[5][a] (2004).....	77



R. Bork, The Antitrust Paradox 156 (1978).....	82
Herbert Hovenkamp, Antitrust Law ¶ 1802c (2d ed. 2002) .....	82
Richard Posner, Antitrust Law: An Economic Perspective 188 (1976) .....	83
2 Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 310c7 (3d ed. 2007).....	85
Irwin M. Stelzer, Notes for Presentation at Department of Justice - Federal Trade Commission Hearings on Monopoly Power and Single Firm Conduct (March 7, 2007) .....	86

**I. STATEMENT OF THE CLAIM**

**A. Introduction and Summary of Intel's Exclusionary Conduct**

By the close of the 1990s, Intel faced the unimaginable — the potential loss of the near total dominance of the x86 microprocessor market that it had enjoyed since the introduction of the PC in 1983. Its “upstart” rival, AMD, consigned for much of the prior fifteen years to copying Intel architecture, brought to market a suite of performance-setting chips offered at a fraction of Intel’s price. AMD began taking marketshare from Intel, initially for computers sold to consumers at retail. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>1</sup> AMD’s expanding presence in consumer retail [REDACTED]

[REDACTED]

[REDACTED]

But the AMD threat was not limited to sales of microprocessors for consumer machines. When Compaq threatened in 1999 to begin using AMD processors in computers targeted for small and medium businesses (“SMB”), [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

As the next decade opened, things only got worse for Intel, particularly as its efforts to consign AMD entirely to the high-cost, low profit consumer part of the market faltered. AMD continued to gain traction with brand-name computer-makers (referred to as "OEMs"), increasing its processor sales for computers targeted for small and medium businesses as well as consumers. And with the introduction of AMD's K-8 series of chips in 2003, AMD dramatically bested Intel almost across the board. More significantly, for the first time it gained entrée into the highly profitable business of supplying processors for computers purchased by large public and private enterprises. Introduced initially at the very high end of the commercial market for data centers, AMD's new Opteron processors were [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] AMD had flat-out seized technological leadership.

As Intel began the long climb toward regaining technical parity, a goal it would not achieve until 2006, it realized the critical importance of containing AMD before it reached efficient scale and, in turn, the ability to compete effectively in future rounds of product and process innovation. Antitrust compliance went out the window, as Intel scurried to lock AMD out of as many customers and market segments as possible. Among other things, Intel seized

---

<sup>1</sup> Text set off in quotation marks has been extracted from documents produced in this litigation.

upon the following exclusionary tactics:<sup>2</sup>

- **Payments for Exclusivity.** Despite public denials, Intel paid off customers to boycott AMD.<sup>3</sup> [REDACTED] payments Intel made to Dell — until recently, the world's largest computer-maker. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] At various times, Intel also paid

Gateway, Acer, the major Japanese OEMs, and various system builders and distributors to close their doors to AMD.

---

To highlight particular passages, we have set them out in ***bold italics***.

<sup>2</sup> These tactics, which excluded AMD from huge swaths of the x86 microprocessor market, are at the heart of both AMD's and Class Plaintiffs' Section 2 Sherman Act case and Class Plaintiffs' parallel Cartwright Act, California UCL and other state law claims. Further, much of the discovery necessary to stitch together admissible evidence of the tactics is common to both AMD and the Class, as are the fundamental legal principles underlying their respective claims. Accordingly, this Preliminary Pretrial Statement is presented on behalf of both AMD and the Class.

<sup>3</sup> “‘We don't buy exclusivity,’ responds Intel general counsel Bruce Sewell, 48, flatly.” *Fortune Magazine* (August 21, 2006).

- **Payments for Sector and Channel Exclusion.** Where it couldn't buy company-wide exclusivity, Intel focused its payments on foreclosing AMD from specific sectors of the market critical to AMD's success. Intel has deployed this weapon most successfully to keep AMD-based computers away from large business customers, [REDACTED]

- **Payments To Cancel or Delay AMD-Powered Platforms.** Another favored Intel tactic was to pay off customers to abandon development of a particular AMD computer model they had decided to launch. Intel typically made these payments to cripple new product announcements essential to the successful launch of a new line of AMD processors, or to nip in the bud AMD inroads into sectors Intel viewed as critical.

- **Quantity-Forcing, All-or-Nothing Discounts.** Intel regularly employs a discount scheme that is designed to make it uneconomic for AMD to compete for a customer's available business. Key to this practice is Intel's ability to leverage the large share of its customers' requirements that they must obtain from Intel in any event. Intel is an unavoidable trading partner for all OEMs and most other microprocessor customers.

Because of brand awareness created by Intel's extensive advertising, conservatism which makes corporate purchasing agents favor established brands, platform stability considerations that require OEMs to continue the production of previously introduced computers for eight to twelve quarters, and just plain Intel market dominance, quarter-to-quarter AMD is only able to compete for a very small share of any customer's business.<sup>4</sup> Knowing this, Intel leverages its uncontestable control over the dominant share of the customer's business to capture its contestable business. Intel accomplishes this by offering to discount the price of its non-contestable microprocessors on the condition that the customer also buy its contestable needs from Intel. This imposes a disproportionate, and often unaffordable, cost on AMD. To capture the contestable units, it must not only meet Intel's discounted price on those units, but also charge a price sufficiently lower so that it makes the customer whole for its discount loss on the non-contestable units that Intel's all-or-nothing scheme imposes.<sup>5</sup>

---

<sup>4</sup> Although Intel and AMD microprocessors are programmed with the same x86 instruction set, and can therefore run the same x86 software, they are not interchangeable since each must be mated with compatible graphics and other chipsets on the motherboard. Hence, once an OEM launches a platform, it can only source microprocessors from the original microprocessor supplier, be it AMD or Intel, thus locking the other out for the life of that platform. Competition is limited to new platforms, not existing ones.

<sup>5</sup> Intel's practice is most easily explained using a very simplified example. Consider an OEM with requirements of 100 microprocessors (or 100%) for the upcoming quarter, 80 (or 80%) of which must be purchased from Intel. Intel may nominally price those at \$100 per processor but offer the customer a \$20 discount if it agrees also to buy the contestable units from Intel and not AMD. If the customer buys all 100 from Intel, it pays \$80 apiece. If it only buys 80 from Intel, Intel ups the price to \$100 each, in effect imposing a penalty of \$1,600 for dealing with AMD. Consequently, AMD must charge a price that makes the customer whole for the \$1,600 penalty, if it is to capture the available business. In this example, the effective Intel price for the 20 contestable units that AMD must beat is zero since the customer's Intel outlays will be the same if it buys all 100 hundred from Intel (\$80

Of course, the notion of discounting the price of units that Intel will sell anyway is simply an illusion (what rational supplier sells for less than full price parts the customer must buy from him anyway?). Its only purpose is to hide the fact that Intel is deeply discounting contestable units [REDACTED] to keep that business from falling into the hands of a competitor. And as Intel has proven, first-dollar, conditional rebates are an extremely effective way for a dominant firm to leverage its “must have” position to box out a competitor from sales that might otherwise be available to it. Indeed, [REDACTED], Intel used just this tactic to [REDACTED]

- **Predatory Bid Pricing.** Despite Intel’s exclusionary efforts, AMD’s Opteron so outperformed Intel’s competitive product that several OEMs began offering an AMD server solution. Servers are frequently sold in large numbers on a bid basis to highly sophisticated end users, typically large corporate, governmental or educational data centers. Purchases of AMD-powered servers by these highly regarded technology leaders had the potential to validate AMD’s technological superiority and expedite the introduction of its 64-bit architecture into the broader commercial space.

Seeking both to deny AMD such validation and to deter further OEM defection,

Intel [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

x 100 =\$8,000) or just 80 (\$100 x 80 = \$8,000). AMD cannot stay in business giving its

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- **Threats of Retaliation Against OEMs.** The various carrots Intel offers to coax loyal behavior have to be considered in the context of the many sticks it deploys to punish what it considers disloyal conduct. Intel's reputation for retaliation is widespread. The forms of its punishment are myriad. It has a history of delaying or withdrawing marketing funds or other discretionary payments, engaging in hyper-technical quibbling over a customer's entitlement to ostensibly non-discretionary ones (such as Intel Inside money); withholding critical technical and roadmap information; allocating scarce products away from those seen as disloyal; and generally scaling back the level of customer support. These tactics serve to reinforce the inducements Intel regularly dispenses by reminding the industry that disloyal customers can expect their rivals to receive preferential treatment from Intel that will tip the competitive balance. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- **Technical Exclusion and Cost Raising.** Hand in glove with Intel's system of financial rewards and penalties, Intel has deployed a host of anticompetitive initiatives to

---

chips away for free.



limit AMD's marketshare growth, to raise its costs of competing with Intel, and to degrade performance of AMD products and impugn them in the marketplace. Intel's bag of "dirty tricks" includes: (1) the distribution to independent software writers of Intel compiler software that is secretly designed to degrade artificially the performance of the writers' software when run on AMD-based computers, (2) the manipulation of benchmarking standards to create a false public impression that AMD processors are sub-standard, (3) the manipulation of industry technical standards in a manner designed to prevent or substantially delay AMD's entry into certain markets entirely, (4) the execution of deals with third parties that result in the loss of product features when used with AMD-based computers, and (5) a host of similar brand-damaging stunts that are now just coming to light.

**B. AMD Innovation Breakthroughs that Led Intel To Unlawfully Exclude.**

The forces that led Intel to resort to anticompetitive exclusionary conduct trace back to the origins of its monopoly in the early 1980s. Intel did not earn its monopoly; it was handed it by IBM. As part of IBM's development of its line of personal computers (which became the standard for PCs), it considered all available microprocessor architectures (including AMD's), settling in 1981 on the line of processors derived from Intel's 8086 chip. However, IBM refused to be dependent on Intel as a monopoly supplier. As part of the contract with IBM, Intel agreed to publish its technical standards openly, to facilitate second-source manufacturing of Intel-designed chips, and it licensed AMD (and others) to begin selling other versions of Intel's microprocessors to IBM.

Intel's x86 microprocessor architecture soon became the accepted industry standard, and additional OEMs began designing x86 computers. The x86 instruction set, along with the

Microsoft Windows operating system, became essential ingredients of personal computing. With the exception of AMD, rival suppliers found it impossible to compete with Intel, and one by one were driven from the market. Propelled by its success, Intel became much more restrictive with its second-sourcing licenses and refused to acknowledge the applicability of AMD's license to Intel's newly released 386 chip or any future generations of x86 microprocessors. Litigation ensued, and several years later the parties forged a settlement that required AMD to reinvent itself. Henceforth, it agreed, it would cease offering pin-for-pin replicates of Intel microprocessors. In return for ridding itself of a second-source for its designs, Intel granted AMD a permanent, nonexclusive and royalty-free license to the x86 instruction set, but not to Intel's x86 architecture. In short, to remain a long-term supplier of x86 microprocessors, AMD would have to develop its own proprietary x86 microprocessor architecture and become a full-fledged innovation rival to Intel.

The move from second-source to innovation rival posed supreme challenges. Most significantly, it required AMD to commit to the heightened product and process innovation pace that its entry as a full innovation rival would both require and further stimulate. Technology in both product design and fabrication process moves fast in the world of computing, and AMD's emergence as an x86 innovation rival would serve to push innovation even faster. Moreover, AMD understood that to compete successfully with Intel, it would be required to develop a product in all three major segments of the x86 computing market – desktop, mobile, and server. Otherwise, Intel would exploit its total monopoly in the unserved segments to leverage AMD's exclusion from the served segments. Because AMD had not previously manufactured a microprocessor directed to the high performance server segment, it would be required to develop such a product essentially from scratch.

These challenges carried enormous, multi-billion dollar price tags. Simply to fund on an ongoing basis both research and development (“R&D”) and the construction and equipping of new facilities at which to fabricate each new generation of microprocessors (“fabs”), AMD needed to win a sizable share of the market. By its analysis, it needed to earn between 20% and 30% of industry revenue and achieve a product mix that included significant higher-profit commercial sales. But an even larger share would be necessary (which it estimated as between 30 and 35%) to overcome Intel’s leveraging of its dominant position with major OEMs, and to achieve full credibility as a reliable supplier of Tier 1 OEMs.

But a string of technological coups presented AMD with the opportunity of reaching these critical milestones. As noted earlier, by April 1997, AMD had designed and introduced its new architecture in a desktop microprocessor – the K6 – that was smaller, faster, and easier to use than Intel’s competitive desktop offering (Pentium II), and it presented Intel with serious competition. In June 1999, AMD introduced a next-generation (K-7) microprocessor (Athlon) suitable for both desktop and mobile. The Athlon was notable not only in that it beat its Intel counterpart (Pentium III) on just about every benchmark, but that it maintained its performance lead through successive generations, a feat that won it the prestigious Maximum PC “CPU of the Year” award three years running. The Athlon opened doors at the handful of computer-makers who constitute the Tier 1 OEMs of the industry (*e.g.*, HP, IBM, Sony, Toshiba) and helped establish AMD’s reputation in the technology community as a truly significant innovation player.

Most game changing, however, was AMD’s introduction of the Opteron microprocessor for the server market in April 2003 and the Athlon64 family of microprocessors for the desktop and notebook markets beginning in September 2003. With these products, AMD became the first company to introduce 64-bit extensions to the x86 instruction set, and thus to provide a

simple transition for computer users from the standard 32-bit chip architecture to the dramatically faster 64-bit computing.<sup>6</sup> Intel followed a different path to 64-bit computing: it pushed for abandonment of the x86 instruction set, which would have rendered existing software obsolete. Sophisticated IT end-users, such as Pixar, ExxonMobil, JP Morgan Chase, Google, DreamWorks, Morgan Stanley and other larger data center operators rejected the Intel path and instead began to drum their suppliers for AMD 64-bit computers. So successful were these products that they opened up a technological lead for AMD in the high end of the market that was to persist until 2006. Indeed, that lead only widened when, in May 2005, AMD beat Intel to the “dual core” punch by offering power-conserving microprocessors that can share computing tasks across two or more processing cores.

**C. Intel’s Objective of Preventing AMD from Reaching Minimum Viable Scale**

The pace of AMD’s technical progress led Intel to conclude that it had to clamp down before it was too late. Intel has long recognized that AMD is its only potential x86 rival. Existing intellectual property rights – both Intel’s and AMD’s – amassed over the twenty-five years of x86 computing, represent a virtually insurmountable entry barrier. Even if technically possible, entrants would require billions of dollars and years of R&D to effect a competing design. Additional billions of dollars would be required to maintain a minimally competitive pace of innovation with the market leaders, and to build or procure current-generation fab capacity.<sup>7</sup>

---

<sup>6</sup> x86 64-bit technology dramatically improves the performance of computer systems. Addressing 64-bits of data at once allows computer systems to access a much larger amount of memory and vastly improves system performance.

<sup>7</sup> High volume production early in a new microprocessor product cycle is also critical. A sustainable participant must quickly ramp up to a high level of production to drive down the per-

But as Intel has recognized, the exorbitant costs of competing in the x86 microprocessor market likewise challenge AMD's ability to remain a viable innovation competitor to Intel. Intel has consistently earned more than an 80% *revenue* share over the past ten years. What's left over is not sufficient to sustain the level of investments necessary to remain a viable innovation competitor. Intel is keenly aware of this. At an open forum dinner in January 2001, for example, where Intel's CEO Paul Otellini proclaimed that Intel will "NEVER fall behind the performance curve again," he openly acknowledged Intel's intent to leverage its dominant position, proclaiming that a supplier with an 18% share of the market "can't fight off" a supplier with over 80% of the market.

Maintaining marketshare and preventing AMD from reaching critical mass became a central part of Intel's competitive strategy as AMD emerged as Intel's technological equal in the late 1990's, and eclipsed it early in the succeeding decade. The goal was to contain AMD's marketshare growth as much as possible during the period of time it would take for Intel to get back on its technological feet. More importantly, its central objective was to keep AMD below the level necessary for it to achieve long-term sustainability. To accomplish this, Intel single-mindedly sought to maintain an 80% market share by any and all available means, and to relegate AMD to earning the balance in the least profitable segments of the business – generally retail consumer where average chip prices are the lowest and selling costs are the highest. ■

unit cost of manufacturing a single microprocessor. This presents an insurmountable “chicken and egg” problem: volume requires customers willing to place large orders, but no reputable OEM is likely to order in quantity until an entrant has launched non-infringing, technologically competitive products, demonstrated the ability to ramp its production, and won over other

[REDACTED]

To be sure, Intel included among its containment tactics legitimately competitive components, such as redoubling investments in R&D and competing more aggressively on price. But the backbone of its strategy was to cut AMD off from the most important customers, the most profitable market segments and the most valuable opportunities for establishing and evangelizing the AMD brand, all with the goal of preventing AMD from achieving sustainable scale.

**D. Intel's Efforts Succeeded in Containing the AMD Threat**

By its exclusive and near-exclusive deals, Intel orchestrated near game-ending exclusion of AMD. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>8</sup> And these foreclosure numbers fail to take into account the other opportunities that seemingly were open to AMD, but were in fact denied by the OEM's fear of Intel retaliation.

On a revenue basis, Intel foreclosed even more of the market. That is because in high-value sectors with greater average selling prices, Intel [REDACTED]

[REDACTED]

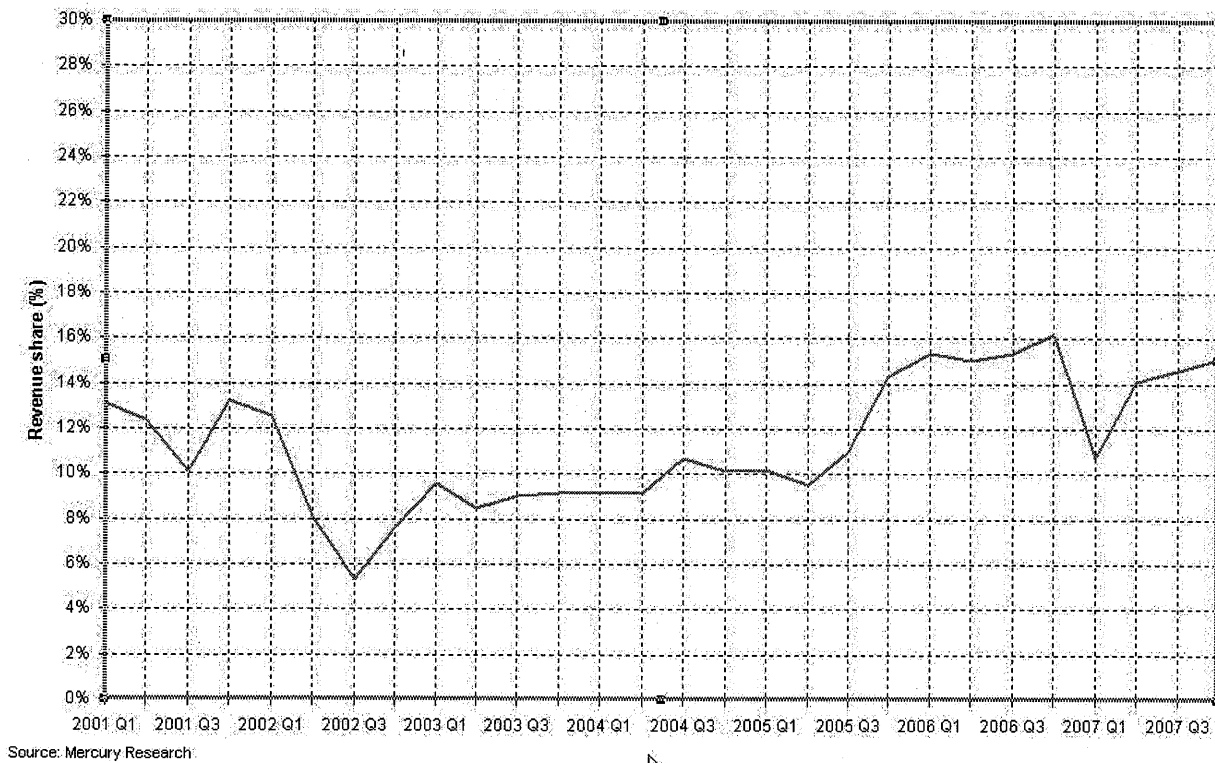
---

participants in the x86 ecosystem (e.g., chipset and graphics card manufacturers) whose support is essential.

<sup>8</sup> AMD was left generally with the business of smaller customers, thinly spread throughout the worldwide x86 ecosystem, serviced by the distribution channel who buy a lower margin mix of products than do the Tier One OEMs.

By foreclosing AMD from even accessing what probably amounts to [REDACTED] of x86 revenue, Intel assured that AMD could never achieve sustainable scale since doing so would mean capturing *virtually all* of the business of the few available customers against a must-carry, entrenched brand.

Intel's exclusionary strategy largely succeeded. Measured on a revenue share basis, AMD made little progress in growing its slice of the pie, not surprising with so many doors closed to it. Indeed, as shown in the following chart, up until the June 2005 filing of this lawsuit and contemporaneous international enforcement actions that caused Intel to moderate its misconduct (and that emboldened its customers), AMD's technologic successes earned it a lower share of desktop and notebook revenues than it had achieved during most of 2001 and early 2002. Through the end of 2008, it garnered roughly 13% of total x86 microprocessor revenues, less than half of what it requires to operate long-term as a sustainable business.

**AMD x86 Desktop and Mobile Revenue Share 2001–2007**

## II. EXCLUSIONARY CONDUCT CONTENTIONS

Other than living with its effects, AMD has no first-hand knowledge of the tactics Intel has deployed to keep customers from doing business with AMD. The initial source material for proving up a violation comes from document productions. But Intel has blanketed Plaintiffs under a blizzard of documents. What it contends amounts to the equivalent of 140 million pages has just been produced, much in the past ninety days. Additional caches of documents are being received continuously from Intel's customers, though many, including important OEMs such as HP, have yet to produce their first document. Hence, Plaintiffs' knowledge of the full array of Intel's exclusionary practices must be regarded as preliminary.

Moreover, Intel's document production is an unreliable source of proof since Intel has made sure that the written record tells little of the story. Putting aside its reckless, if not



intentional, destruction of untold numbers of email and other electronic documents in this case, Intel embraces a culture that erases its history as soon as it is created. Stretching back well over a decade before this lawsuit, Intel has implemented, refined and vigorously enforced a corporate policy designed to keep its anti-competitive activities under wraps. [REDACTED]

[REDACTED] But there's more. To ensure that its employees do not create any paper trails, Intel stages mock raids of employee offices and uses "bad" documents to conduct mock depositions. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Intel totally botched its preservation of documents in this case.<sup>9</sup>

The corporate culture at Intel is that of a company under siege, and it translates into lawlessness at the highest levels. [REDACTED]

9

[REDACTED]

AMD calculates that the equivalent of

[REDACTED]

[REDACTED]<sup>10</sup> [REDACTED]

[REDACTED]

[REDACTED]

But even working from a tainted and damaged written record, and even at this early stage, Intel's exclusionary fingerprints can be found throughout the worldwide market for microprocessors. That market consists principally of two groups: (1) computer manufacturers who either buy microprocessors directly from AMD and Intel, or buy through distribution and (2) independent distributors who buy microprocessors from Intel and AMD for resale to smaller computer manufacturers, specialized system builders, specialty retailers and home hobbyists. Intel has attempted to impose roadblocks to AMD's penetration of both parts of the market.

Computer-makers fall into one of three general categories: large multinational OEMs that buy microprocessors directly from Intel and AMD; smaller regional or local OEMs supplied through distribution; and "white-box" manufacturers or system-builders which generally produce unbranded or private label computers. The latter generally sell in the retail consumer and SMB segments, or offer specialized computing systems (often including software) tailored for distinct end-user groups. We offer below highly abbreviated, customer-by-customer summaries of what at this very early stage we expect the evidence will show, summaries that have been pieced together largely on the basis of what can be inferred from the "paper" record. In footnotes, we

---

<sup>10</sup> [REDACTED]

identify the principal players — both from Intel and its customers — whose information will likely be needed to confirm Plaintiffs' understanding of the facts and to transform this fragmentary written record into admissible evidence of unlawful exclusion.

**A. Unlawful Exclusion of AMD from Tier 1 OEMs**

The largest OEMs, or "Tier Ones" as they are sometimes referred to in the industry, account for roughly 80% of worldwide server and workstation (specialized high-powered desktops) sales, some 40% of desktop sales and nearly 80% of notebook sales. A handful of large OEMs dominate in both desktop and notebook: Hewlett-Packard ("HP"), which acquired Compaq Computer in 2002; Dell; IBM, which sold its PC (but not server) business to Lenovo in May 2005; Fujitsu; and Fujitsu-Siemens. Acer (which completed its purchase of Gateway/eMachines in October 2007), NEC, Toshiba and Sony are also commonly considered Tier One OEMs, the last two principally in the notebook segment of the PC market. Dell and HP are the dominant players, collectively accounting for over 30% of worldwide desktop and mobile sales, and almost 60% of worldwide server sales.

In terms of microprocessor purchases, the Tier Ones are critical. Not only do their purchases comprise an inordinate share of the market, but the leading ones — HP, Dell and IBM/Lenovo — control most of the higher value, enterprise business. Not surprisingly, [REDACTED]

[REDACTED]

1. **Dell**

a) **Exclusive Dealing**

From the time Dell started making computers in 1984 until May 2006 – a period spanning more than 22 years – Dell did not buy a single AMD microprocessor. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>11</sup>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>11</sup> These amounts only include funds [REDACTED]

[REDACTED]

[REDACTED]

As end-user demand for AMD products increased, Dell [REDACTED]

[REDACTED]

[REDACTED]

Intel's [REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

While it lasted, Dell's exclusivity [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]:

[REDACTED]

[REDACTED]

[REDACTED]

---

12

[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]

When Dell finally added AMD product in the summer of 2006, [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

As best we can piece together without the benefit of deposition testimony, [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]<sup>13</sup> Until the bargaining participants are

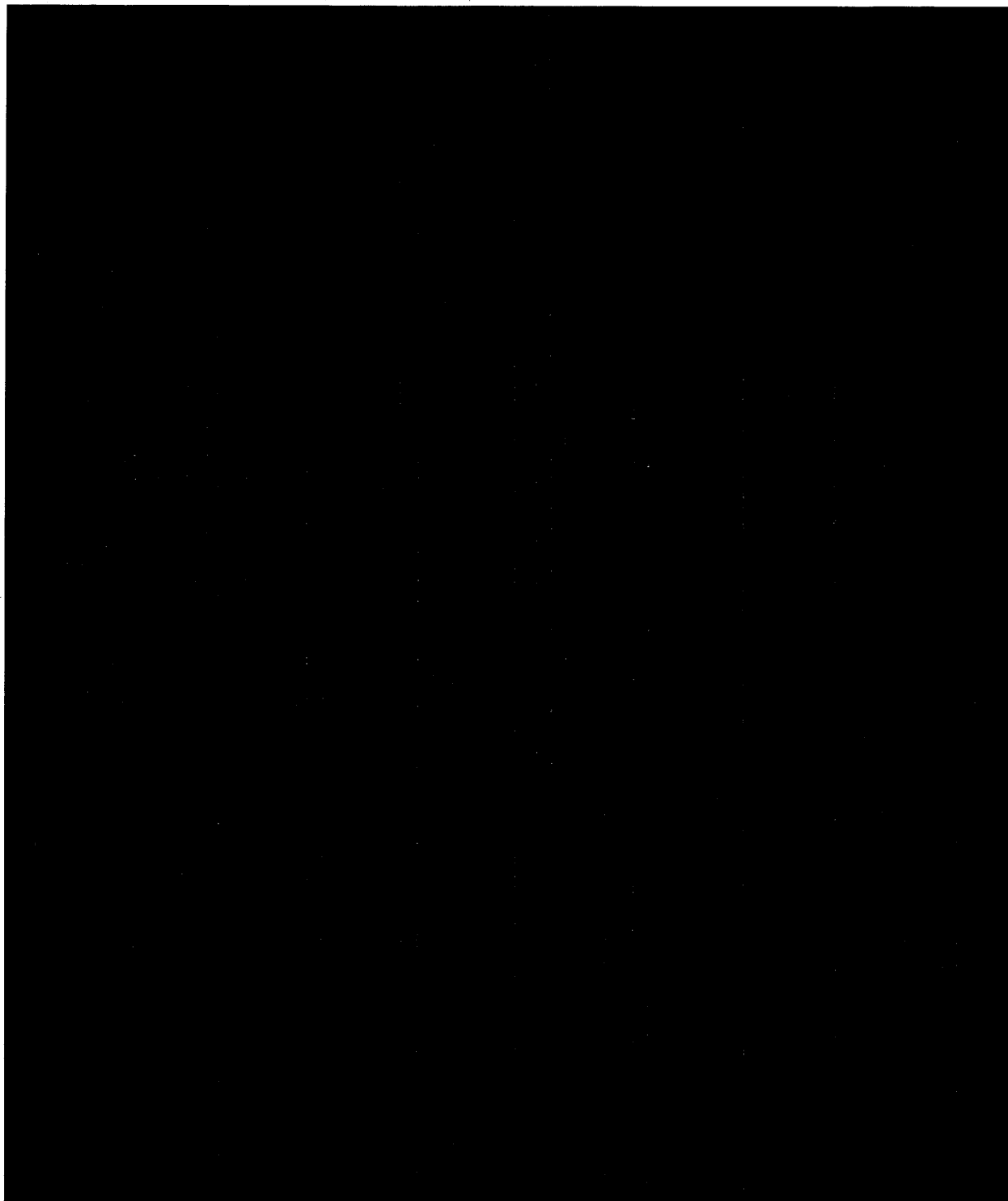
---

[REDACTED]  
<sup>13</sup> The following Intel employees (along with their job titles at the time) appear to have been involved in the [REDACTED]



deposed, the vital details of Dell's exclusive arrangements will remain unknown.

---



**b) Predatory Bid Pricing**

Not only did Intel [REDACTED]

[REDACTED], it also began [REDACTED]

14

**2. Hewlett-Packard**

Following its acquisition of Compaq in 2002, Hewlett-Packard Company ("HP") experienced rapid growth and became, ultimately, the world's largest supplier of personal computers and servers. Unlike Dell, HP has historically resisted sole-sourcing from Intel

<sup>14</sup> Plaintiffs will likely need to depose witnesses from various levels of the Intel and Dell organizations to establish that [REDACTED]

The witnesses include the top executives on each side who [REDACTED]

There is likely to be some, but not complete, overlap between these witnesses and those involved in [REDACTED]

[illegible]

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher than the number of incorrect responses for all groups. The number of correct responses was significantly higher than the number of incorrect responses for all groups. The number of correct responses was significantly higher than the number of incorrect responses for all groups.

[illegible]

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1. *Journal of Management Studies*, 1996, 33, 1, 1-14.

The total value of [REDACTED]

[illegible]

<sup>15</sup> Intel employees who appear to have had primary responsibility for HP (and their titles at the time) include: [REDACTED]

16

A few examples from a still fragmentary record will suffice to illustrate [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Despite [REDACTED]

[REDACTED]

[REDACTED] AMD finally won a commercial desktop platform in 2002 following HP's acquisition of Compaq. This involved complicated negotiations, [REDACTED]

[REDACTED]

---

[illegible][illegible][illegible]

The result: HP took only 160,000 of the one million free processors that AMD

had offered it. No rational computer manufacturer would leave 840,000 free, state-of-the-art microprocessors on the table unless it had been foreclosed from using them by exclusionary conduct. And that is precisely what happened.

### **3. IBM/Lenovo**

Since its incorporation in 1911, IBM has been at the forefront of information technology and is widely considered the gold standard in enterprise and business computing. With its omnipresent mainframes, IBM became the dominant player in the computer industry in the 1950's, and in 1981, IBM literally invented the personal computer. The popularity and success of IBM's desktop and mobile lines passed on to relative newcomer Lenovo when it purchased the IBM PC business in 2005. As a result, Lenovo quickly became an international force rivaling Dell and HP. IBM continues to develop, market, and sell its powerful servers and, [REDACTED]

[REDACTED] Unfortunately for AMD, to a large extent, [REDACTED]

#### **a) Exclusive Dealing – Client Computers Prior to the Lenovo Sale**

Throughout the 1990s, IBM purchased microprocessors for its commercial desktops only from Intel, relegating AMD to the low-margin consumer segment. As AMD emerged as a technological rival, Intel [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[illegible][illegible]

<sup>17</sup> Key Intel deposition candidates include:

deposition candidates include:



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>19</sup>

In 2004, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

---

<sup>18</sup> Intel deposition candidates: [REDACTED] IBM  
deposition candidates: [REDACTED]

<sup>19</sup> Intel deposition candidates: [REDACTED] IBM deposition candidates: [REDACTED]

[REDACTED]  
[REDACTED]<sup>20</sup>

**b) Exclusive Dealing – Client Computers After the Lenovo Purchase**

Even before its purchase of IBM's desktop and notebook business in 2005, Lenovo [REDACTED]  
[REDACTED] In 2004, Lenovo launched an AMD desktop, but [REDACTED], it postponed the launch event, limited promotion, and relegated the AMD product to its low-end volumes. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

Lenovo's acquisition of the IBM brand did not provide it with [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

---

<sup>20</sup> Intel deposition candidates: [REDACTED]

[REDACTED] IBM deposition candidates: [REDACTED]  
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>21</sup>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>22</sup> [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

---

<sup>21</sup> Intel deposition candidates:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>23</sup>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

---

<sup>22</sup> [REDACTED]

<sup>23</sup> Intel witnesses: [REDACTED]  
[REDACTED] Lenovo deposition candidates [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

\_\_\_\_\_

[REDACTED]

[REDACTED]

[REDACTED]

\_\_\_\_\_

\_\_\_\_\_

[REDACTED]

[REDACTED]

[REDACTED]

24

As it turns out, the late 2006 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>26</sup>

**c) Exclusive Dealing in IBM Servers – Intel Payments To Prevent IBM's Deployment of AMD-Powered Servers**

In 2003, IBM agreed to support the launch of AMD's Opteron through its introduction of a line of servers employing them. As quickly as IBM embraced Opteron, [REDACTED]

[REDACTED]

---

<sup>24</sup> [REDACTED]

<sup>25</sup> Intel deposition candidates: [REDACTED]

Lenovo deposition candidates: [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>27</sup>

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>28</sup>

The same story played out again in 2004 [REDACTED]

---

<sup>27</sup> Intel deposition candidates:

[REDACTED]

[REDACTED] IBM deposition candidates: [REDACTED]

<sup>28</sup> Intel deposition candidates:

[REDACTED] IBM deposition candidates: [REDACTED]

Opteron blade server — a rack mountable server computer that can be stacked densely in large, high-performance data centers. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

---

[REDACTED]



[REDACTED]<sup>29</sup> Although AMD-based server products are presently offered by all the other major OEMs catering to enterprise customers, Intel has to this day kept AMD from gaining anything more than a toehold in IBM's valuable commercial server space.

#### 4. Gateway

Although smaller than Dell, IBM/Lenovo, or HP, Gateway was still a significant OEM prior to its acquisition by Acer, and in 2004 accounted for approximately 2.5% of the worldwide desktop market and approximately 1.5% of the worldwide mobile market.<sup>30</sup> Gateway's retail

---

<sup>29</sup> Intel deposition candidates:

[REDACTED]  
deposition candidates

IBM

<sup>30</sup> AMD is only beginning to understand the nature and extent of Intel's predatory tactics toward Gateway over the past decade.

stores and mass-market advertising campaigns made it a popular brand among consumers.<sup>31</sup>

As of the fall of 1998, Gateway had been using Intel microprocessors exclusively in its high-end products and a mix of Intel and AMD chips for the balance of the product line. In November 1998, [REDACTED]

[REDACTED] In February 1999,  
Gateway announced a collaboration with AMD on future PC and system products and the  
inclusion of AMD-K6 (Athlon) processors in Gateway's select product line.

\_\_\_\_\_ who appear to be likely deposition candidates.

<sup>31</sup> Gateway has grown significantly since 2000, first through its 2004 merger with eMachines and then, subsequently, through its 2007 acquisition by Acer, which is now the third largest OEM in the world, just ahead of Lenovo. [REDACTED]